

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/510,678
Source: PCP/10
Date Processed by STIC: 10/18/04

ENTERED



PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,678

DATE: 10/18/2004

TIME: 17:04:35

Input Set : A:\Sequence.ST25.txt
 Output Set: N:\CRF4\10182004\J510678.raw

3 <110> APPLICANT: MEYER, Urs Albert
 4 FRASER, David John
 5 KAUFMANN, Michel R.
 6 PODVINEC, Michael
 7 ZUMSTEG, Adrian
 9 <120> TITLE OF INVENTION: Enhancer sequence of the 5-aminolevulinic acid synthase gene
 11 <130> FILE REFERENCE: 3024-107
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/510,678
 C--> 13 <141> CURRENT FILING DATE: 2004-10-08
 13 <150> PRIOR APPLICATION NUMBER: WO03/085113A
 14 <151> PRIOR FILING DATE: 2003-04-04
 16 <150> PRIOR APPLICATION NUMBER: WO03/085112A
 17 <151> PRIOR FILING DATE: 2002-04-09
 19 <160> NUMBER OF SEQ ID NOS: 39
 21 <170> SOFTWARE: PatentIn version 3.1
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 167
 25 <212> TYPE: DNA
 26 <213> ORGANISM: Gallus gallus
 28 <400> SEQUENCE: 1
 29 ctgcctccag tcctgaactt tctctgctgg gatgagcaga gttcacgctc ggctgaactc 60
 31 gtgactgtgt caacaggggg catgaagatc agcaccaggc aaaggtgagc ggagtgcaca 120
 33 agaatgagggc agagacctt gggacaaaaga gttccccacc cgtgggg 167
 36 <210> SEQ ID NO: 2
 37 <211> LENGTH: 176
 38 <212> TYPE: DNA
 39 <213> ORGANISM: Gallus gallus
 41 <400> SEQUENCE: 2
 42 gggctccatc ggcctttca ggttattgct atgttcaact cgtgtgaccc ttcccccgt 60
 44 tttcaagggtt ctgataacaa acttcttagga cagcctgggt acctttggct cagttcctc 120
 46 tttaaactcc ggtggctttt gtttattgc ctatgttta cccagcaga aagatc 176
 49 <210> SEQ ID NO: 3
 50 <211> LENGTH: 175
 51 <212> TYPE: DNA
 52 <213> ORGANISM: Mus musculus
 54 <400> SEQUENCE: 3
 55 ttagactcatc aggttccctgg tggagagctg ggtgaaccga gttcgttgc actgccttgg 60
 57 cctgtgtgt gtttcaggaa caggtcatgc tccagattt aggacacagg ttagctgata 120
 59 agggccatgg agccggtgat atgacccgca gggtaactcc ctctgccccaa gtcta 175
 62 <210> SEQ ID NO: 4
 63 <211> LENGTH: 280
 64 <212> TYPE: DNA
 65 <213> ORGANISM: Mus musculus

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,678

DATE: 10/18/2004

TIME: 17:04:35

Input Set : A:\Sequence.ST25.txt
 Output Set: N:\CRF4\10182004\J510678.raw

67 <400> SEQUENCE: 4
 68 agtccagtca gaaccttctg gcttctgccca tgagacagcc tatgagctca tcaggttcct 60
 70 ggtggagagc tgggtgaacc gagttcggtt gcactgcctt gcctgtgtg tggcttcagg 120
 72 aacaggtcat gctccaggat ttaggacaca gtttagctga taaggcccat ggagccggtg 180
 74 atatgaccccg cagggtcact ccctctgccc aagtctagat acttgtttcc ctcttagac 240
 76 tccagatcaa ggactccaga tctgtcatgg actcagaaaa 280
 79 <210> SEQ ID NO: 5
 80 <211> LENGTH: 321
 81 <212> TYPE: DNA
 82 <213> ORGANISM: Mus musculus
 84 <400> SEQUENCE: 5
 85 agtccagtca gaaccttctg gcttctgccca tgagacagcc tatgagctca tcaggttcct 60
 87 ggtggagagc tgggtgaacc gagttcggtt gcactgcctt gcctgtgtg tggcttcagg 120
 89 aacaggtcat gctccaggat ttaggacaca gtttagctga taaggcccat ggagccggtg 180
 91 atatgaccccg cagggtcact ccctctgccc aagtctagat acttgtttcc ctcttagac 240
 93 tccagatcaa ggactccaga tctgtcatgg actcagaaaa ccccccagta ccacccacc 300
 95 cccgtgtctc ctcctatga t 321
 98 <210> SEQ ID NO: 6
 99 <211> LENGTH: 328
 100 <212> TYPE: DNA
 101 <213> ORGANISM: Mus musculus
 103 <400> SEQUENCE: 6
 104 gtggctgggt tggatggga tgggaaggct tggatcttc tgattccatg tccagtcaga 60
 106 accttctggc ttctccatg agacagccctt tgagtcatc aggttcctgg tggagagctg 120
 108 ggtgaaccga gttcggttgc actgccttgg cctgtgtgtg gcttcagaa caggtcatgc 180
 110 tccaggattt aggacacagg ttagctgata aggccatgg agccgggtat atgaccgc 240
 112 gggtaactcc ctctgcccgtt gcttagatcc ttgtttccct ctttagactc cagatcaagg 300
 114 actccagatc tgcgtatggac tcagaaaa 328
 117 <210> SEQ ID NO: 7
 118 <211> LENGTH: 369
 119 <212> TYPE: DNA
 120 <213> ORGANISM: Mus musculus
 122 <400> SEQUENCE: 7
 123 gtggctgggt tggatggga tgggaaggct tggatcttc tgattccatg tccagtcaga 60
 125 accttctggc ttctccatg agacagccctt tgagtcatc aggttcctgg tggagagctg 120
 127 ggtgaaccga gttcggttgc actgccttgg cctgtgtgtg gcttcagaa caggtcatgc 180
 129 tccaggattt aggacacagg ttagctgata aggccatgg agccgggtat atgaccgc 240
 131 gggtaactcc ctctgcccgtt gcttagatcc ttgtttccct ctttagactc cagatcaagg 300
 133 actccagatc tgcgtatggac tcagaaaaacc ccccaagtacc accccacccc cgctgtccc 360
 135 tcctatgtat 369
 138 <210> SEQ ID NO: 8
 139 <211> LENGTH: 174
 140 <212> TYPE: DNA
 141 <213> ORGANISM: Homo sapiens
 143 <400> SEQUENCE: 8
 144 ggcggaaatgc aacacaagcc tctccaccgt gtgtccatgt ttatgtgtat ggcgtgtgcc 60
 146 ccgtcatgcc acctggacgc agggactcca gtgaccccttc cttgcacaag cctctgtgg 120
 148 ttggggaaatggatgatca catcagccaa gctctggct tgcctttttt ccct 174
 151 <210> SEQ ID NO: 9

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,678

DATE: 10/18/2004

TIME: 17:04:35

Input Set : A:\Sequence.ST25.txt
 Output Set: N:\CRF4\10182004\J510678.raw

152 <211> LENGTH: 800
 153 <212> TYPE: DNA
 154 <213> ORGANISM: Homo sapiens
 156 <400> SEQUENCE: 9

| | | | | | | |
|-----------------|---------------------------------------|------------|------------|------------|-------------|-----|
| 157 caggcgcaaa | gtcaacacaa | gcctctccac | cgtgtgtcca | tgtttatgtg | tatgcgtgt | 60 |
| 159 gccccgtcat | gccacactgga | cgcaggact | ccagtgacct | ctccttgcac | aaggctctgc | 120 |
| 161 tggtttggga | aagatggca | tgacatcaga | caagctctgg | ccttgccttt | ttttccatccc | 180 |
| 163 ggaacccggc | tggctcaaga | tctgagccgt | ggatctgcac | ccactttggg | gagttcctgc | 240 |
| 165 ccttgggcta | gagtagaggc | caagagtcaa | agtgtggtgg | gggctgaggc | agcaggatcg | 300 |
| 167 cttgagccca | ggagttcaag | gttagagta | tgtttgcata | actgcattcc | agcctgggta | 360 |
| 169 agagagcag | accctgcctc | aaaaaaaaaa | aaaaaaaaaa | aaaaagagt | gtgggggtag | 420 |
| 171 ggacagggag | atgaggaagg | ccctacagt | gagaaagcac | caggaccaga | accagccct | 480 |
| 173 cccttgtctg | aatcttgctg | cccacaggag | cctggacagt | ggccaggaa | gttcgaatg | 540 |
| 175 ccacacaggt | gagcttggcc | tctgtctgt | aggcagtggg | aagtgtctgg | agttgggcat | 600 |
| 177 tcctgtgagg | cgcatagtca | acattgtgag | tagggctgga | tgtcgagctg | tgagagggaa | 660 |
| 179 actagaagct | ggaacatcta | caggaggctt | ttaagagaag | cagagcggcc | aggtgcagt | 720 |
| 181 gctgacacct | gtaatcccag | cactttgggt | ggccgagggg | gtcagaacac | ttgaggtcag | 780 |
| 183 gagttcgaga | ccaggggtgac | | | | | 800 |
| 186 <210> | SEQ ID NO: 10 | | | | | |
| 187 <211> | LENGTH: 935 | | | | | |
| 188 <212> | TYPE: DNA | | | | | |
| 189 <213> | ORGANISM: Homo sapiens | | | | | |
| 191 <400> | SEQUENCE: 10 | | | | | |
| 192 cacggtagcca | caggaggcaa | aggaccaccc | atggaatcca | cccaggaggg | ccaggacagg | 60 |
| 194 ggactcaggg | gcctcagccct | gcactcacct | gctcagcaga | gtcgagctca | ggcataacg | 120 |
| 196 tcagcttcct | gggcagaaga | gctgcaaaa | tcaaagctt | gctagtcaga | aaattccttg | 180 |
| 198 ggaatgttga | gcaaggccac | cactgacatc | atgtcaaat | tcgcagacag | cctctgcacc | 240 |
| 200 taaggctact | cagaccacca | gccttggctc | gatggggtgg | cagactctgt | atgccaccag | 300 |
| 202 cacaccaccc | cacagggcag | aggggtcagg | acatagaatc | agacaggccc | caggaccccc | 360 |
| 204 agtgaagatt | ataggcagcc | atccccact | caacagagga | gaaggtcaga | gccaagtctg | 420 |
| 206 acattcccccc | atccccctctc | cataacaccc | atgcatctgg | cagtcagaca | ggcctaagct | 480 |
| 208 aaacctttcc | cccccagcta | cccaccaggg | tcatccccaa | gccaggtcag | ggccaatggaa | 540 |
| 210 ggttggggtg | gagaagacag | gcttggccct | atttctgccc | caactcagaa | ccttctgggt | 600 |
| 212 tctgccacag | gatgccttgc | aagcttacgt | gggtcactgt | gggcagctgg | gtgagctaag | 660 |
| 214 ttcatctgtg | ctgcccgtac | ctctgtgcag | atgcatcaag | aacacagagt | gtcccggggt | 720 |
| 216 taggatgagg | gcagcgtga | taaggttcat | ggaaccagt | acagagcaca | cagtcgcccc | 780 |
| 218 cagagtcaact | ccccctgtgcc | ccagcctgga | cacctcagct | ccctctcaac | cccttccccga | 840 |
| 220 ggtgctagat | gtatatggga | ccagaaagcc | ccctctgtgt | cctcctgtgt | gagagccca | 900 |
| 222 ctgtcttaggt | gtttgtgact | ctgggcctcg | agggg | | | 935 |
| 225 <210> | SEQ ID NO: 11 | | | | | |
| 226 <211> | LENGTH: 25 | | | | | |
| 227 <212> | TYPE: DNA | | | | | |
| 228 <213> | ORGANISM: Artificial sequence | | | | | |
| 230 <220> | FEATURE: | | | | | |
| 231 <223> | OTHER INFORMATION: Forward PCR primer | | | | | |
| 233 <400> | SEQUENCE: 11 | | | | | |
| 234 ggggaccagt | ccagtcagaa | ccttc | | | | 25 |
| 237 <210> | SEQ ID NO: 12 | | | | | |
| 238 <211> | LENGTH: 27 | | | | | |

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/510,678

DATE: 10/18/2004
TIME: 17:04:35

Input Set : A:\Sequence.ST25.txt
Output Set: N:\CRF4\10182004\J510678.raw

```

239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Reverse PCR primer
245 <400> SEQUENCE: 12
246 ccgcgtcgagt tttctgagtc catgaca 27
249 <210> SEQ ID NO: 13
250 <211> LENGTH: 26
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: Forward PCR primer
257 <400> SEQUENCE: 13
258 ggggttaccgt ggctgggttg ggatgg 26
261 <210> SEQ ID NO: 14
262 <211> LENGTH: 27
263 <212> TYPE: DNA
264 <213> ORGANISM: Artificial sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Reverse PCR primer
269 <400> SEQUENCE: 14
270 ccgcgtcgaga tcataggagg gagcagc 27
273 <210> SEQ ID NO: 15
274 <211> LENGTH: 32
275 <212> TYPE: DNA
276 <213> ORGANISM: artificial sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: forward PCR primer
281 <400> SEQUENCE: 15
282 ggaggaactc gacacgatac caacatagca at 32
285 <210> SEQ ID NO: 16
286 <211> LENGTH: 30
287 <212> TYPE: DNA
288 <213> ORGANISM: artificial sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: reverse PCR primer
293 <400> SEQUENCE: 16
294 ctatgttggat atcggtcgat gttcctccct 30
297 <210> SEQ ID NO: 17
298 <211> LENGTH: 28
299 <212> TYPE: DNA
300 <213> ORGANISM: artificial sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: forward PCR primer
305 <400> SEQUENCE: 17
306 gaattcggcca actgcagccg ggctgtcc 28
309 <210> SEQ ID NO: 18
310 <211> LENGTH: 30
311 <212> TYPE: DNA

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,678

DATE: 10/18/2004

TIME: 17:04:35

Input Set : A:\Sequence.ST25.txt
 Output Set: N:\CRF4\10182004\J510678.raw

312 <213> ORGANISM: artificial sequence
 314 <220> FEATURE:
 315 <223> OTHER INFORMATION: reverse PCR primer
 317 <400> SEQUENCE: 18
 318 cagcctggct gcagttggcg aattctcctc 30
 321 <210> SEQ ID NO: 19
 322 <211> LENGTH: 33
 323 <212> TYPE: DNA
 324 <213> ORGANISM: artificial sequence
 326 <220> FEATURE:
 327 <223> OTHER INFORMATION: forward PCR primer
 329 <400> SEQUENCE: 19
 330 ccccacgcag ccccacccgct cggctgaact cgt 33
 333 <210> SEQ ID NO: 20
 334 <211> LENGTH: 34
 335 <212> TYPE: DNA
 336 <213> ORGANISM: artificial sequence
 338 <220> FEATURE:
 339 <223> OTHER INFORMATION: reverse PCR primer
 341 <400> SEQUENCE: 20
 342 gtggggctgc gtggggcagc agagaaagtt cagg 34
 345 <210> SEQ ID NO: 21
 346 <211> LENGTH: 27
 347 <212> TYPE: DNA
 348 <213> ORGANISM: artificial sequence
 350 <220> FEATURE:
 351 <223> OTHER INFORMATION: forward PCR primer
 353 <400> SEQUENCE: 21
 354 gaattcacag ccatggtgaa gatcagc 27
 357 <210> SEQ ID NO: 22
 358 <211> LENGTH: 25
 359 <212> TYPE: DNA
 360 <213> ORGANISM: artificial sequence
 362 <220> FEATURE:
 363 <223> OTHER INFORMATION: reverse PCR primer
 365 <400> SEQUENCE: 22
 366 ccatggctgt gaattcagtc acgag 25
 369 <210> SEQ ID NO: 23
 370 <211> LENGTH: 24
 371 <212> TYPE: DNA
 372 <213> ORGANISM: artificial sequence
 374 <220> FEATURE:
 375 <223> OTHER INFORMATION: forward PCR primer
 377 <400> SEQUENCE: 23
 378 gtttaaagct ggcactgtcc caaa 24
 381 <210> SEQ ID NO: 24
 382 <211> LENGTH: 25
 383 <212> TYPE: DNA
 384 <213> ORGANISM: artificial sequence

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/510,678

DATE: 10/18/2004

TIME: 17:04:36

Input Set : A:\Sequence.ST25.txt

Output Set: N:\CRF4\10182004\J510678.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date